

FIG. 1
PRIOR ART

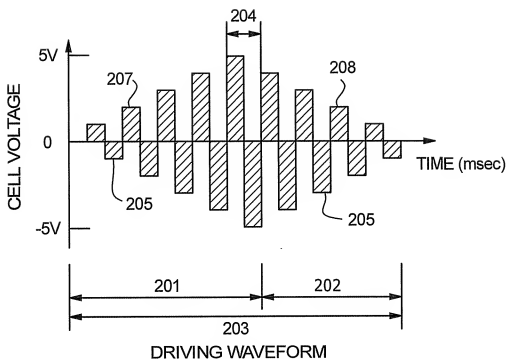


FIG. 2A

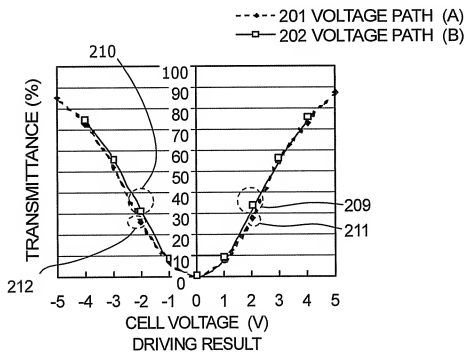
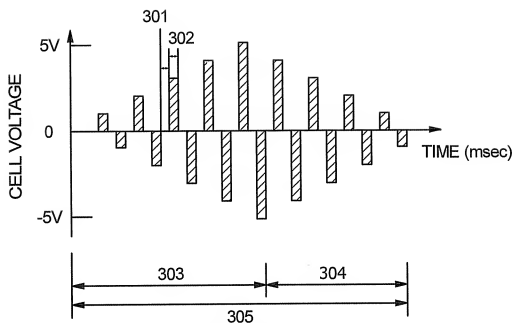


FIG. 2B

DRIVING WAVEFORM AND DRIVING RESULT
 WHEN "OV" RESET PERIOD IS NOT PROVIDED



DRIVING WAVEFORM

FIG. 3A

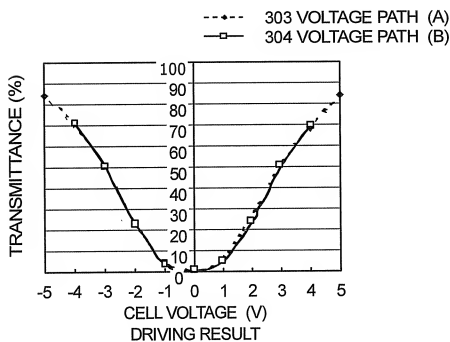


FIG. 3B

DRIVING WAVEFORM AND DRIVING RESULT
WHEN "OV" RESET PERIOD IS NOT PROVIDED

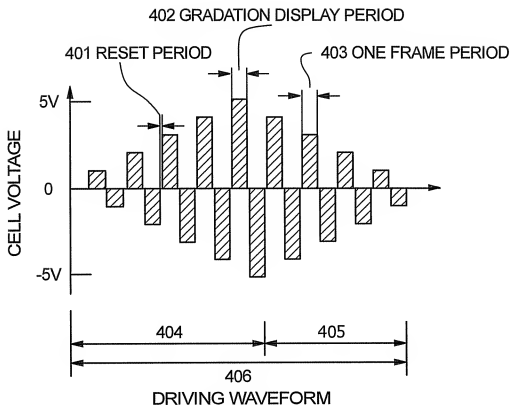


FIG. 4A

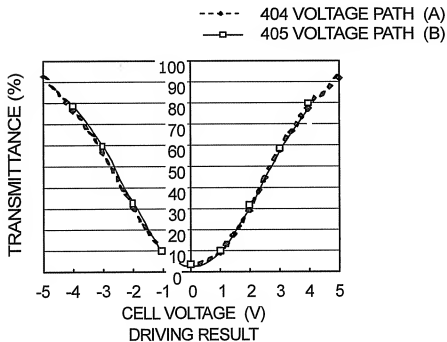
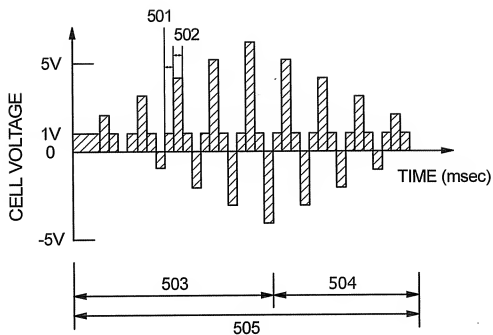


FIG. 4B

DRIVING WAVEFORM AND DRIVING RESULT
WHEN "OV" RESET PERIOD IS SHORT

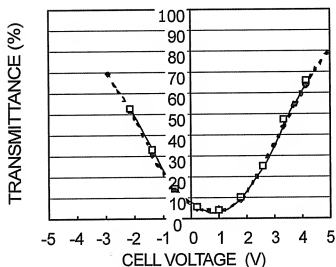
RESET PERIOD: 2msec GRADATION DISPLAY PERIOD: 14.6msec



DRIVING WAVEFORM

FIG. 5A

- ♦-- 503 VOLTAGE PATH (A)
- 504 VOLTAGE PATH (B)



DRIVING RESULT

FIG. 5B

DRIVING WAVEFORM AND DRIVING RESULT
WHEN RESET VOLTAGE OF "1V" IS PROVIDED

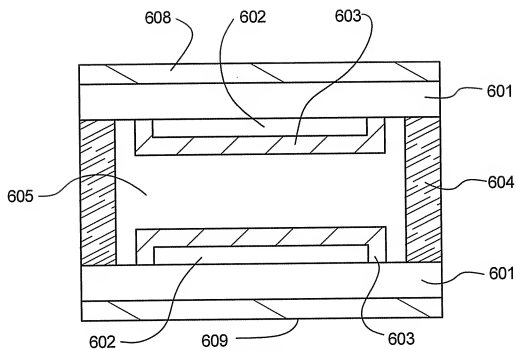


FIG. 6A

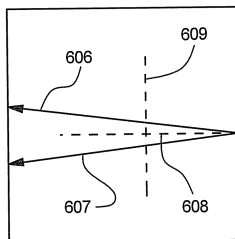


FIG. 6B

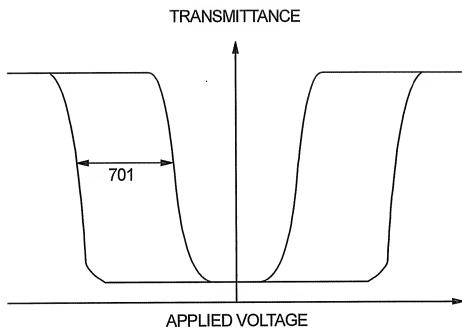


FIG. 7A
PRIOR ART

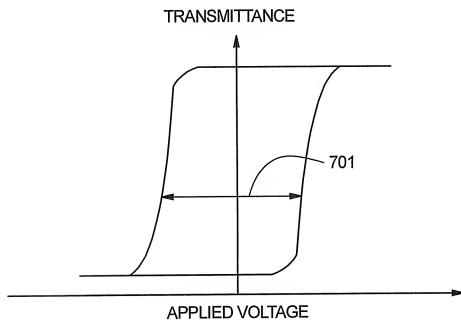


FIG. 7B
PRIOR ART

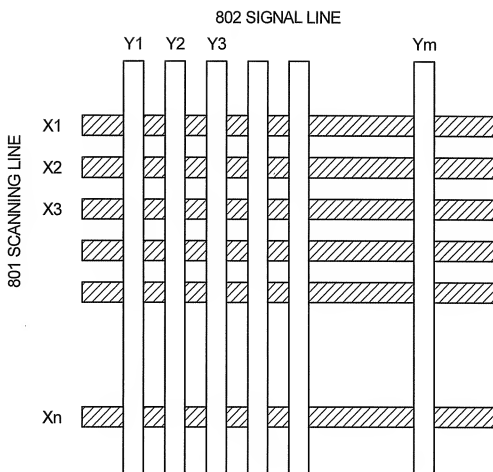


FIG. 8
PRIOR ART

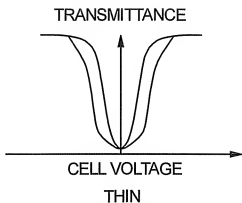


FIG. 9A

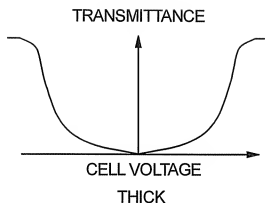


FIG. 9B

ORIENTATION FILM THICKNESS

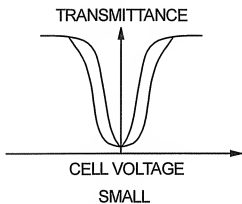


FIG. 9C

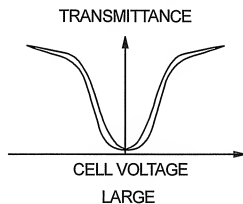


FIG. 9D

SPONTANEOUS POLARIZATION

CHARACTERISTICS OF HYSTERESIS OF THRESHOLDLESS LIQUID CYRSTAL

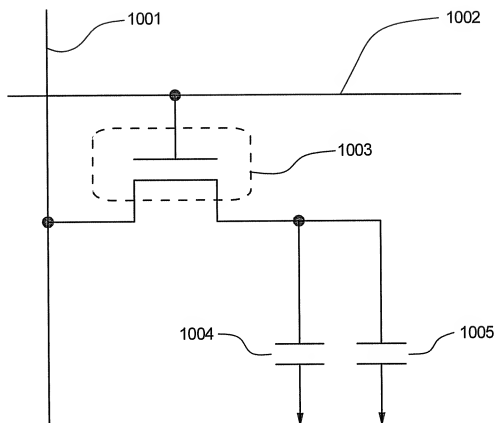


FIG. 10

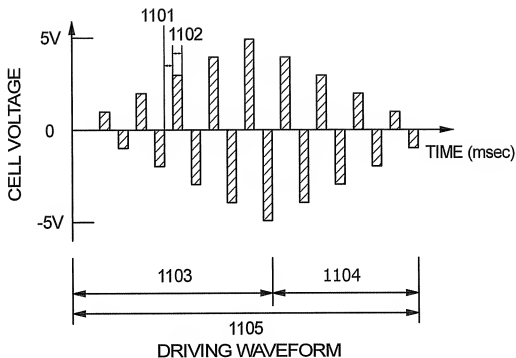


FIG. 11A

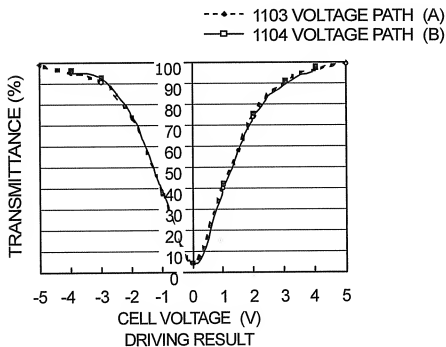
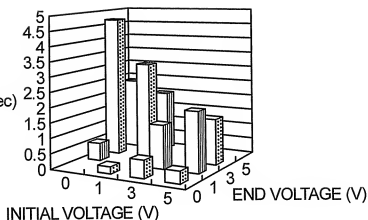


FIG. 11B

DRIVING WAVEFORM AND DRIVING RESULT
WHEN "OV" RESET PERIOD IS PROVIDED
SPONTANEOUS POLARIZATION OF LIQUID CRYSTAL: 40 nC/cm^2

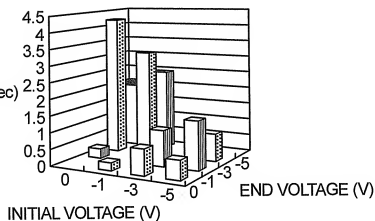
RESPONSE TIME (msec)

FIG. 12A

RESPONSE TIME BETWEEN
POSITIVE POLARITY VOLTAGES

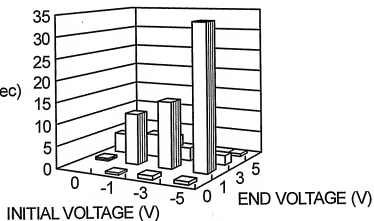
RESPONSE TIME (msec)

FIG. 12B

RESPONSE TIME BETWEEN
NEGATIVE POLARITY VOLTAGES

RESPONSE TIME (msec)

FIG. 12C

RESPONSE TIME BETWEEN
OPPOSITE POLARITY VOLTAGES

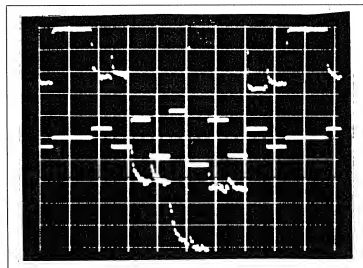
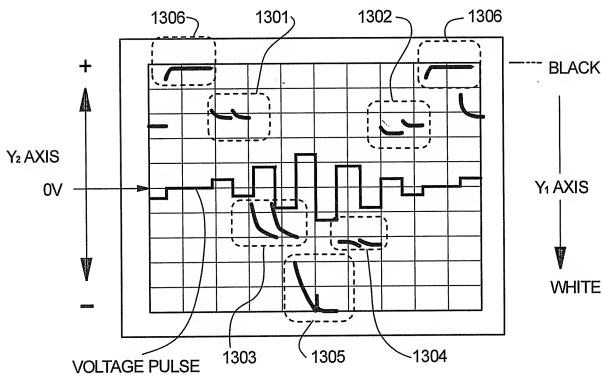


FIG. 13A



OPTICAL RESPONSE OF THRESHOLDLESS LIQUID CRYSTAL
WHEN "0V" RESET PERIOD IS NOT PROVIDED

FIG. 13B

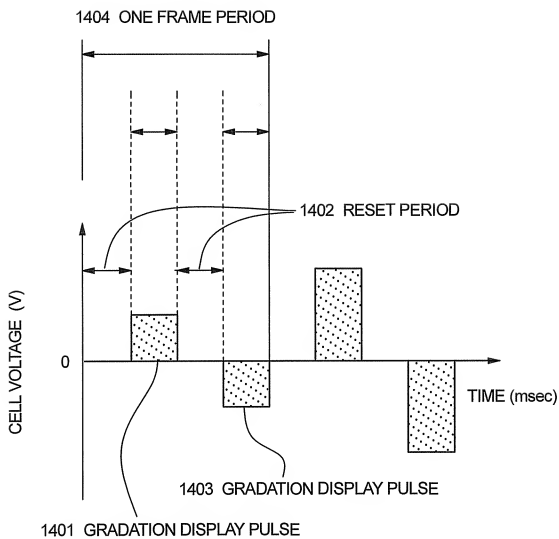


FIG. 14

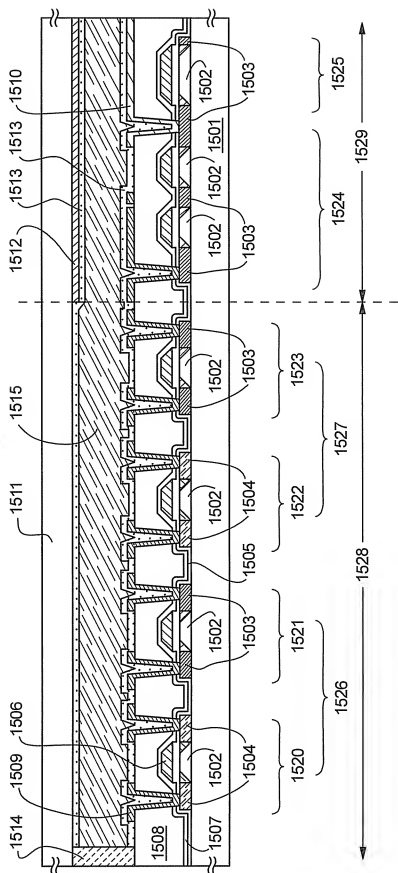


FIG. 15

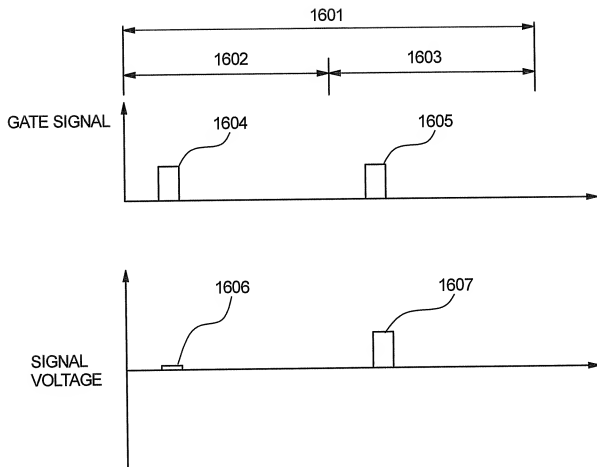


FIG. 16

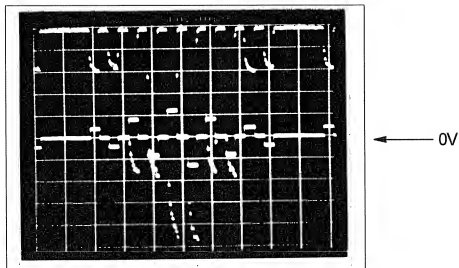


FIG. 17A

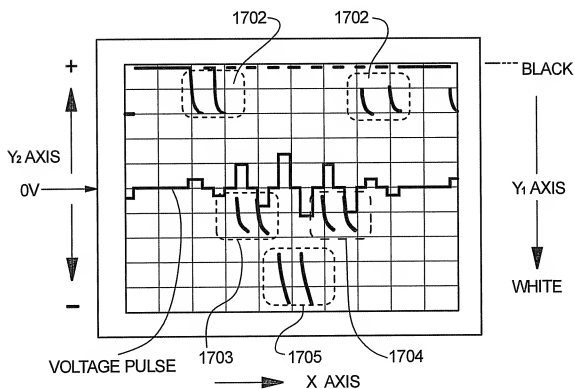
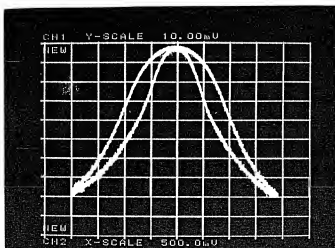


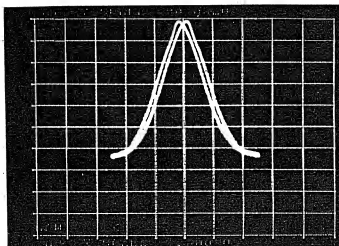
FIG. 17B

OPTICAL RESPONSE OF THRESHOLDLESS LIQUID CRYSTAL
WHEN "0V" RESET PERIOD IS PROVIDED



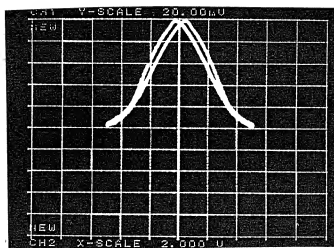
THICKNESS OF ORIENTATION FILM: 30nm

IFUG. 18A



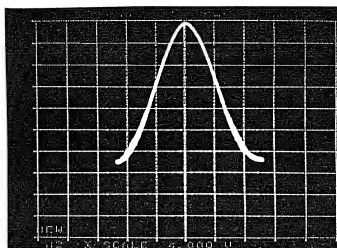
THICKNESS OF ORIENTATION FILM: 75nm

IFUG. 18B



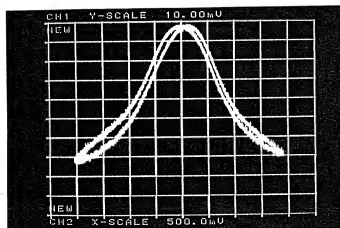
THICKNESS OF ORIENTATION FILM: 110nm

FIG. 18C



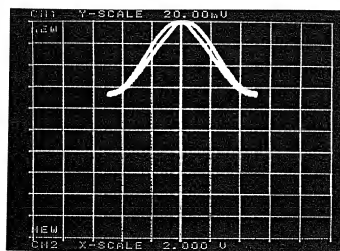
THICKNESS OF ORIENTATION FILM: 220nm

FIG. 18D



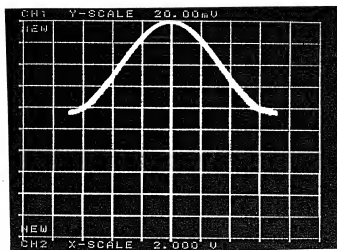
THICKNESS OF ORIENTATION FILM: 30nm

FIG. 19A



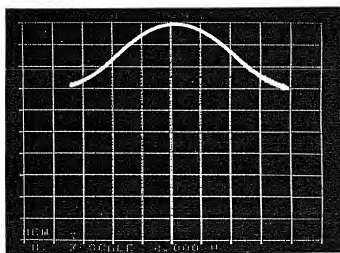
THICKNESS OF ORIENTATION FILM: 75nm

FIG. 19B



THICKNESS OF ORIENTATION FILM: 110nm

FIG. 19C



THICKNESS OF ORIENTATION FILM: 220nm

FIG. 19D

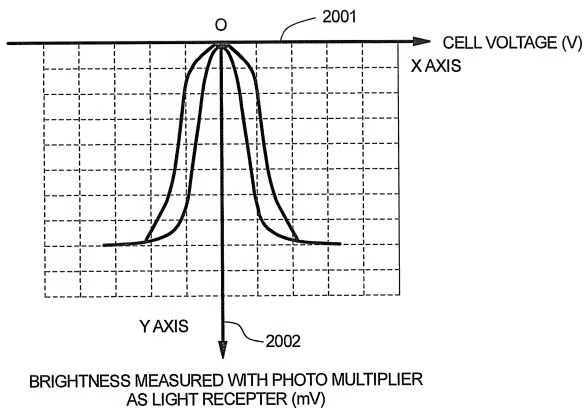


FIG. 20